

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

What is claimed is:

1. (currently amended): A diaphragm for a speaker comprising:
a diaphragm body made of metal; and
an auxiliary diaphragm made of paper, the auxiliary diaphragm integrally bonded to a part of the diaphragm body; and

wherein the auxiliary diaphragm is formed to cover only the center portion of the diaphragm body.

2. (canceled).

3. (currently amended): ~~The A diaphragm according to claim 1, for a speaker comprising:~~

a diaphragm body made of metal; and

an auxiliary diaphragm made of paper, the auxiliary diaphragm integrally bonded to a part of the diaphragm body;

wherein a plurality of portions recessed toward the center of the diaphragm body are formed at a plurality of locations along the outer periphery of the auxiliary diaphragm.

4. (original): The diaphragm according to claim 3, wherein the plurality of portions recessed is odd in number, and formed at regular angular intervals along the outer periphery of the auxiliary diaphragm.

5. (currently amended): ~~The A diaphragm according to claim 1, for a speaker comprising:~~

a diaphragm body made of metal; and

an auxiliary diaphragm made of paper, the auxiliary diaphragm integrally bonded to a part of the diaphragm body;

wherein the outer configuration and the area of the auxiliary diaphragm are set based on the high limit frequency of the diaphragm to which the auxiliary diaphragm is bonded.

6. (currently amended): ~~The A diaphragm according to claim 1, for a speaker comprising:~~

a diaphragm body made of metal; and

an auxiliary diaphragm made of paper, the auxiliary diaphragm integrally bonded to a part of the diaphragm body;

wherein a through hole for inserting a connecting cable is formed at a portion where the diaphragm body and the auxiliary diaphragm are overlapped, whereby a feeder portion of the diaphragm for inserting the connecting cable to connect with the voice coil can be formed of paper of the auxiliary diaphragm.

7. (currently amended): ~~The A diaphragm according to claim 1, for a speaker comprising:~~

a diaphragm body made of metal; and

an auxiliary diaphragm made of paper, the auxiliary diaphragm integrally bonded to a part of the diaphragm body;

wherein a cylindrical portion to which a voice coil bobbin of a speaker is connected is integrally formed at the center of the auxiliary diaphragm.

8 (original): The diaphragm according to claim 1, wherein the auxiliary diaphragm is formed by manufacturing of paper.

9. (new): A diaphragm, comprising:

a diaphragm body having an inner surface and an outer surface; and

an auxiliary diaphragm having an inner surface and an outer surface, wherein the inner surface of the auxiliary diaphragm is attached to the outer surface of the diaphragm body.

10. (new): The diaphragm as claimed in claim 9, wherein the auxiliary diaphragm comprises paper.

11. (new): The diaphragm as claimed in claim 10, wherein the diaphragm body comprises metal.

12. (new): The diaphragm as claimed in claim 9, wherein the auxiliary diaphragm comprises recesses that are recessed towards a center of the diaphragm body and that are formed along an outer periphery of the auxiliary diaphragm.

13. (new): The diaphragm according to claim 12, wherein only an odd number of the recesses are formed along the outer periphery of the auxiliary diaphragm.

 14. (new): The diaphragm according to claim 12, wherein the recesses are formed at regular angular intervals along the outer periphery of the auxiliary diaphragm.

15. (new): The diaphragm according to claim 12, wherein a design of the recesses of the auxiliary diaphragm are determined based on at least one of a high limit frequency of the diaphragm, a weight of the diaphragm, and a continuity between a midrange speaker and a tweeter speaker.

16. (new): The diaphragm according to claim 9, wherein at least one of a configuration and an area of the auxiliary diaphragm are determined based on at least one of a high limit frequency of the diaphragm, a weight of the diaphragm, and a continuity between a midrange speaker and a tweeter speaker.

Amendment Under 37 C.F.R. § 1.111
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17. (new): The diaphragm according to claim 9, wherein the auxiliary diaphragm comprises a cylindrical portion, which is located at a center of the auxiliary diaphragm and which is adapted to accommodate a voice coil bobbin.
